## Professional Pearl \& Bead Stringing

## Bead Sizes <br> And <br> Measurements

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## Introduction

Beads are obviously the basis of making jewelry in the pearl and bead stringing niche.

And, although we may have a deep familiarity with beads, we are all sometimes asked questions about beads and their size and measurements where the answers may not be at our fingertips. A client may want to know how many millimeters are in an inch, for example. I know I'd need to look that up.

In another example, you may be planning a piece of jewelry and need to know the number of beads you'll need for a design element. This may involve an inches to millimeters calculation for a specific millimeter size. Again, I'd have to look it up.

While the answers to these types of questions are readily available on the web and elsewhere, it seemed to be a good idea to pull together some critical reference materials for easy access.

Some of the following may be familiar to you. Some of it may not. My hope is that you'll find it useful.

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## Sizes of Beads

Beads are measured in millimeters and they are described in millimeters so it's important to understand millimeters.

One inch equals 25.4 millimeters. So, to convert inches to millimeters, multiply inches by 25.4. To convert to inches, multiply millimeters by 0.03937 . (One millimeter equals 0.03937 inches.)

Here is how millimeters compare with inches. You can see that a 20 millimeter bead, a large bead, for example, is just over $3 / 4$ of an inch or more precisely . 0.7874015748031497 inches.


Here is a chart of standard bead sizes and their corresponding size in inches.

## Common Bead Sizes

| Bead Size- |  |
| :---: | :---: |
| millimeters | Inches |
| 2 | 0.078 |
| 4 | 0.157 |
| 6 | 0.236 |
| 8 | 0.315 |
| 10 | 0.394 |
| 12 | 0.472 |
| 14 | 0.551 |
| 16 | 0.629 |
| 18 | 0.708 |
| 20 | 0.787 |
| 22 | 0.866 |
| 22 | 0.944 |
| 24 |  |

## Bead Sizes - Visual

Here is an image of typical bead sizes. Please note that the image is approximate, however, it will give you a sense of the sizes of the beads that we typically use.

## Bead Size Chart



## Measuring More Precisely

Apart from knowing how to calculate inches and millimeters, professional pearl and bead stringers must know how to measure beads.

The trade uses a variety of gauges to measure beads and faceted stones. And, there are a number of very expensive and very precise gauges available.

However, the most versatile and most widely used is the inexpensive sliding brass gauge, pictured below.

## Brass Gauge



As illustrated, the gauge will give measurements in millimeters and in inches. The bottom row of the gauge provides measurements in millimeters while the top provides measurements in inches.

To use the gauge, place your thumb on the knob to slide the gauge open and capture the bead between the jaws. When the gemstone is firmly within the jaws, you can read the measurement. In the picture above, the jaws are opened at 3 mm .

It's important to know that with many gemstones you'll have two measurements. That's because not every bead is perfectly round. Pearls, for example, are generally off-round.

This means the size of their diameter and length will differ. When you measure pearls first measure its diameter and then its length. Express the size in this way, for example, 8-8 $1 / 2$ millimeters.

When you are first starting out, it's especially useful to carry a gauge with you to measure beads you're considering purchasing. This will help you develop a visual memory so eventually you'll know the size of the bead just by looking at it.

But however good your visual memory, always measure beads before selling a piece of jewelry. All of us make mistakes and want to avoid the embarrassment of mislabeling beads.

## Beads per Inch

Beads are usually bought by the strand or by the hank. The strands are usually 16 " long, although in today's environment, many dealers are shorting strands, so be sure to know the length of the strand you are buying. A general formula for determining necklace length is to add an inch for knots and the clasp. Using this formula, then, a sixteen inch strand will become a seventeen inch choker after manufacture.

Obviously, there are flaws in this general construction. Thread size, knot tightness, and size of clasp can affect the final length of a piece of jewelry. However, don't discount the formula entirely. It's an excellent starting point.

There are occasions when you'll want to have a fairly precise idea of the number of beads you'll need for a piece. The following chart, created by Stuller's, a very fine wholesale company, is as good as any I've seen. However, again bear in mind that lengths can vary depending upon thread size, knot tightness and clasp length.

## Beads Per Inch

| MM | Beads Per <br> Inch |
| :---: | :---: |
| 2 | 12.7 |
| 2.25 | 11.29 |
| 2.5 | 10.16 |
| 2.75 | 9.24 |
| 3 | 8.47 |
| 3.25 | 7.82 |
| 3.5 | 7.26 |
| 3.75 | 6.77 |
| 4 | 6.35 |
| 4.25 | 5.98 |
| 4.5 | 5.64 |
| 5 | 5.08 |
| 5.5 | 4.62 |
| 6 | 4.23 |
| 6.5 | 3.91 |
| 7 | 3.63 |
| 7.5 | 3.39 |
| 8 | 3.18 |
| 9 | 2.82 |
| 10 | 2.54 |
| 11 | 2.31 |
| 12 | 2.12 |
|  |  |

## Standard Lengths

Although you are probably manufacturing art jewelry or custom jewelry as opposed to commercial jewelry, you'll want to know the standard lengths and nomenclature for jewelry.

Please note that although the standard length for a choker is 16 ", this is too short for most women.

Similarly, 7 " is considered standard for bracelets. This is too short for many women.

If you're making a piece for a client, be sure to measure.

## Jewelry Lengths

Type
Choker
Princess
Matinee
Opera Rope
Bracelet Anklet

Inches
16
18
20-14
28-32
40-45
7
9.5

